



# Encoder Test 1

Slide Out Controls 140-1233, 140-1249  
140-1249s, 1510000165

Tip Sheet # 82-S0524, Rev. OC

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## ! WARNING

Always make sure that the slide-out room path is clear of people and objects before and during operation of the slide-out room. Always keep away from the slide-out rails when room is being operated. The gear assembly may pinch or catch on loose clothing.

## ! NOTE

Note: All the harnesses need to stay plugged in during this test.

## ! CAUTION

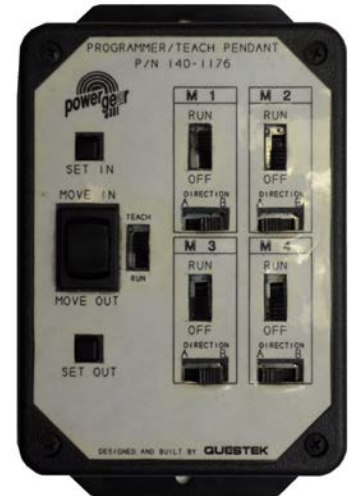
During Teach mode the control has no stop locations. Damage to the room can occur during over travel of the slide-out rails. Do not allow rails to become too far out of sync with each other. This will cause the room to bind and may cause damage to the slide-out rails.

**Read, understand, and follow all instructions in this test before starting.**

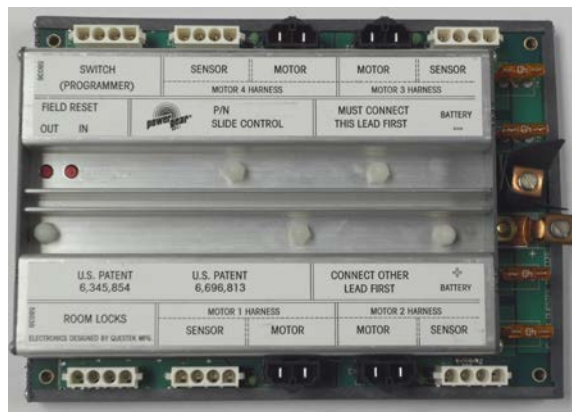
**Test 1:** Use this test **only** if you have a teach pendant (part number 140-1176) and programming instruction (82-S0514), and the slide-out room will move 12" in either direction while in teach mode.



Control Box 140-1233



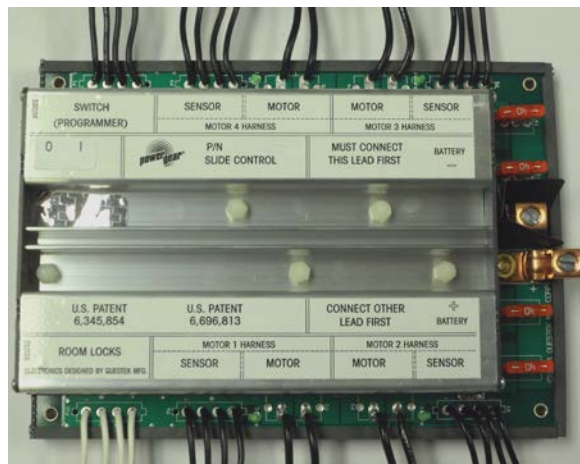
140-1176 Teach Pendant



Control Boxes 140-1249 or 140-1249s



140-1176 Harness



Control Box 1510000165



## NOTE

Note: All the harnesses need to stay plugged in during this test.

## CAUTION

During Teach mode the control has no stop locations. Damage to the room can occur during over travel of the slide out rails. Do not allow rails to become too far out of sync with each other. This will cause the room to bind and may cause damage to the slide-out rails.

## WARNING

If the room was moved while the encoder was unplugged, the room stops will need to be reset. Consult the correct manual or TIP Sheet for the proper procedure.

## NOTE

The motors need to move the rails at least 12" to take readings from the sensor encoder.

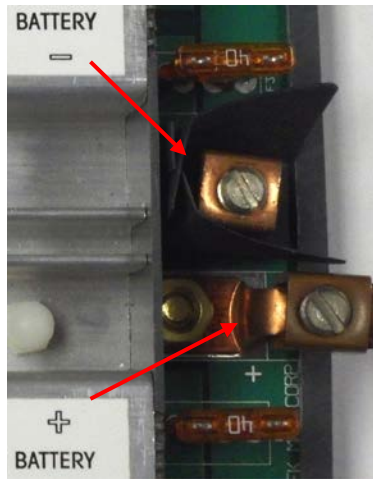


Figure 1

### Step 2: Verifying the rails will move in "teach" mode and not in "run" mode.

Follow the instructions for "Programming the new control" in document number 82-S0510. Follow the instruction stated, "Move the Teach/Run switch to Run position." When doing this step watch the slide-out rail(s) to determine which slide-out rail(s) moves, or does not move. Then watch the slide-out control board to determine which green motor(s) LED light up. See figure 2. This will indicate which motor(s) the control is applying power to. The green motor LED(s) that DO NOT light up are the motor(s) that are not moving. See Figure 3. The motor(s) that do not move, or the Green motor(s) LED does not light up, are the motor(s) encoder that will need to be tested.

### Step 3: Verifying the control box is sending power and ground to the encoder.

Set the multi-meter to DC Volts, and back probe at the Controller Sensor Connection. To test Encoder Sensor, probe between the pin 1 (power) and pin 4 (ground) the voltage between the pins should be 5-6 DC Volts. Repeat this step for any other motor sensor encoders that did not light up the green motor LED or the rail did not move. See figure 4 and 5. See Note to left.

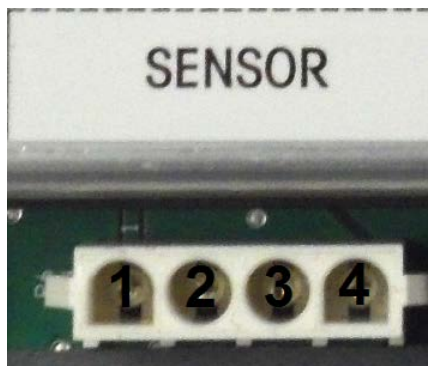


Figure 4

Motor 1 and 2 Sensor Connector



Figure 5

Motor 3 and 4 Sensor Connector

**Step 1. Verifying incoming voltage and ground to the control box.** The slide-out control main power connector needs +13 DC Volts and a good ground to operate correctly. **This requires the engine to be running.** Using a multi-meter check for +13 DC Volts at the main connection between the Battery (-) lug and the Battery (+) lug. **If no power or ground or less than +13 DC Volts are measured between the pins, contact the OEM for the power and ground sources.** See Figure 1.

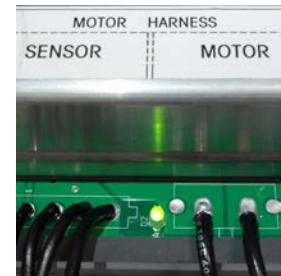


Figure 2

Green Motor LED Lit

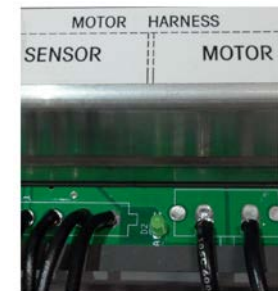


Figure 3

Green Motor LED NOT Lit

## ! NOTE

**Note: All the harnesses need to stay plugged in during this test.**

## ! CAUTION

**During Teach mode the control has no stop locations. Damage to the room can occur during over travel of the slide-out rails. Do not allow rails to become too far out of sync with each other. This will cause the room to bind and may cause damage to the slide-out rails.**

## ! NOTE

**The motors need to move the rails at least 12" to take readings from the sensor encoder.**

**Step 4: Checking the first sensor encoder signal. There are 2 signal wires per sensor encoder connection. See note.** Set multi-meter to AC Volts and while the room (in teach mode) is moving, back probe between pin 4 (ground) and pin 3 (signal) at the controller sensor connection. This should be a steady AC signal. See figure 6.

Check the other encoder signal. Set multi-meter to AC Volts and while the room (in teach mode) is moving, back probe between pin 4 (ground) and pin 2 (signal) at the controller sensor connection. This should be a steady AC signal. See figure 7. Repeat steps 3 and 4 for any other sensor encoders that needs testing per your findings in step 2. If there is a steady AC Voltage, Proceed to step 6.

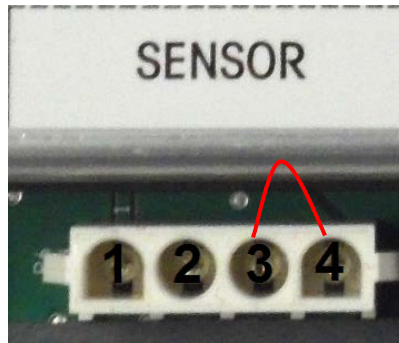


Figure 6

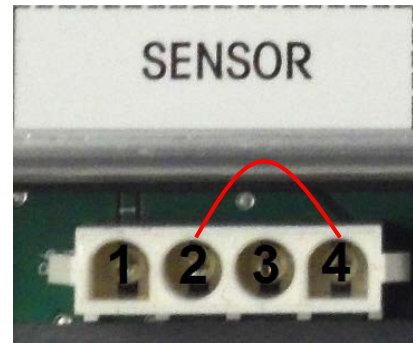


Figure 7

**Step 5: Checking the harness continuity and all connections.**

If there is no voltage reading from the encoder or the AC Voltage reading was **NOT** steady, check the following:

**A:** Check the continuity of the harness between the controller encoder pins and then the motor encoder pins. If the harness does not have continuity, then replace the bad wire, or the harness. The harness can also be checked from pin to pin for continuity, and from each pin to ground. There should not be continuity to ground, or pin to pin.

**B:** Check the connections at the motor and control box. Repair any loose connections or loose pins. If the continuity of all the harness wires tests good, and connections are good, then replace the encoder only (if external mounted encoder see Figure 8,10 and 11) or motor assembly (if internal mounted encoder see Figure 9). See the motor label for the Power Gear part number for replacement.

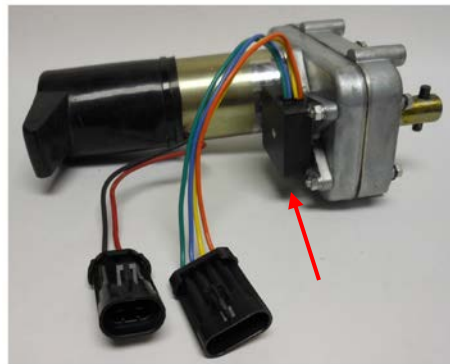
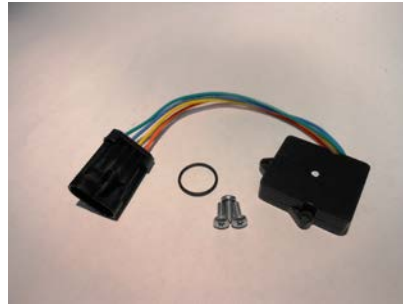


Figure 8  
External Mounted Encoder



Figure 9  
Internal Mounted Encoder





**Figure 10**  
Kit # 1010001442



**Figure 11**  
Kit # 800343

**Step 6:** If the tests in step 3 show a steady AC Voltage at the controller sensor connection, please contact Lippert Components at [www.lci1.com](http://www.lci1.com) for further diagnostic.

## Additional Reference Publications At [www.lci1.com](http://www.lci1.com)

82-S0378	Owner's manual full wall slide systems
82-S0379	Service and installation manual full wall slide systems
82-S0514	140-1176 Programmer/teach pendant instructions
82-S0525	Encoder test 2: Slide-out controls 140-1233, 140-1249(s), 1510000165
3010000067	Emergency retract module instructions (ERM)
3010002189	Troubleshooting control boxes 140-1233, 140-1249(s), 1510000165